

STAFF REPORT

LOCALIZED HEALTH IMPACTS REPORT

Addendum 1 for Selected Projects Awarded Funding
Through the Alternative and Renewable Fuel and Vehicle
Technology Program Under Solicitation PON-13-605 –
Centers for Alternative Fuels and Advanced Vehicle
Technologies



CALIFORNIA
ENERGY COMMISSION

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PREFACE

The increased use of alternative and renewable fuels supports California's commitment to curb greenhouse gas emissions (GHG), reduce petroleum use, improve air quality, and stimulate the sustainable production and use of alternative fuels within California. Alternative and renewable transportation fuels include electricity, natural gas, biomethane, propane, hydrogen, ethanol, renewable diesel, and biodiesel. State investment is needed to fill the gap and fund the differential cost of these emerging fuels and vehicle technologies.

Assembly Bill 118 (Núñez, Chapter 750, Statutes of 2007) created the Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP). This statute, amended by Assembly Bill 109 (Núñez, Chapter 313, Statutes of 2008), authorizes the California Energy Commission to "develop and deploy innovative technologies that transform California's fuel and vehicle types to help attain the state's climate change policies." Assembly Bill 8 (Perea, Chapter 401, Statutes of 2013) reauthorizes the ARFVTP through January 1, 2024.

The statute also directs the California Air Resources Board to develop guidelines to ensure air quality improvements. The California Air Resources Board Air Quality Improvement Program (AQIP) Guidelines, approved in 2008, are published in the *California Code of Regulations, Title 13, Motor Vehicles, Chapter 8.1, AB 118 Air Quality Guidelines for the Alternative and Renewable Fuel and Vehicle Technology Program and the AQIP*. The *AQIP Guidelines* require the Energy Commission, as the funding agency, to analyze the localized health impacts of ARFVTP-funded projects that require a permit (13 CCR § 2343).

ABSTRACT

California Code of Regulations, Title 13, Motor Vehicles, Chapter 8.1, § 2343(c) (6), requires the California Energy Commission to consider the localized health impacts when selecting projects for funding. For each funding cycle, the Energy Commission is required to analyze localized health impacts for projects proposed for program funding that require a permit.

This *Localized Health Impacts Report* reviews the project proposal under consideration for funding that were submitted in response to the Centers for Alternative Fuels and Advanced Vehicle Technologies solicitation, PON-13-605, by the Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP). This *Localized Health Impacts Report* contains the project and site description (including geographic location) and potential impacts as contained in the proposal.

This *Localized Health Impacts Report* analyzes the collective impacts in the community including exposure to air contaminants or localized air contaminants, or both, and including, but not limited to, communities of minority populations or low-income populations, as declared by the project proposers or also as determined by Energy Commission staff. This report identifies outreach to community groups and other affected stakeholders, also as declared by the project proposer.

Keywords: Air pollution, air quality, air quality improvement program (AQIP), Air Resources Board, alternative fuel, Assembly Bill (AB) 118, assessment, California Environmental Quality Act, centers, criteria emissions, demographic, Energy Commission, environmental justice (EJ), Environmental Justice Screening Method (EJSM), greenhouse gas emissions (GHG), localized health impact (LHI)

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EXECUTIVE SUMMARY

Under the *California Code of Regulations Title 13, (CCR § 2343)*, this *Localized Health Impacts Report* describes the alternative fuel infrastructure projects proposed for Alternative and Renewable Fuel and Vehicle Technology Program (ARVTP) funding that may or may not require a conditioned or discretionary permit or environmental review, such as conditional use permits, air quality permits, wastewater permits, hazardous waste disposal permits, and other land-use entitlements. This report does not include projects requiring only residential building permits, mechanical/electrical permits, or fire/workplace safety permits, as these are determined to have no likely impact on the environment.

The California Energy Commission is required to assess the localized health impacts of the projects proposed for ARVTP funding under Centers for Alternative Fuels and Advanced Vehicle Technologies solicitation PON-13-605. This *Localized Health Impacts Report* focuses on the potential impacts the project may or may not have on a particular community, particularly those communities that are considered especially vulnerable to emissions increases within their community. For projects located in high-risk communities, this report assesses the impacts from criteria emissions/air toxics, the air quality attainment status, and mitigation plans, if available. This *Localized Health Impacts Report* includes information about the proposer's outreach efforts including public notices and community outreach.

Environmental justice communities, low-income communities and minority communities are considered to be the most impacted by any project that could result in increased criteria and toxic air pollutants within an area because these communities typically have the most significant exposure to the emissions. Assessing these projects and the communities surrounding them is important because of the health risks associated with these pollutants. Preventing health issues from air pollution in any community is important, but it is especially important to minimize any negative impacts in communities that are already considered to be at risk due to their continued exposure to these contaminants.

The project assessed in this report includes one center in Northern California that will help unify activities that may provide future development and expansion of alternative fuels and advanced vehicle technologies. During normal operations, this facility will not generate criteria emissions, particulate matter (PM), or air toxics at an appreciable level. The project in this *Localized Health Impacts Report* is assessed for potential health impacts for the communities in which it is located; they vary in terms of socioeconomic factors. Based on this analysis, it is not anticipated that implementing this project will have negative impacts on surrounding communities because there will not be a net increase in criteria and toxic emissions, specifically those communities that are considered most vulnerable. Potentially, the project stands to provide improved quality of life through cleaner air.

CHAPTER 1:

Projects Proposed for Funding

This chapter summarizes the project proposed for California Energy Commission funding. This project in this *LHI Report* is:

- The NORCAL Alternative Fuels and Advanced Vehicle Technology Center (carbonBLU LLC), 3140 Peacekeeper Way, McClellan, CA 95652.

CHAPTER 2: Approach, Definitions, and Projects Proposed for Funding

The California Energy Commission, through the Alternative and Renewable Fuels and Vehicle Technology Program (ARFVTP), released a competitive grant solicitation and application package on August 23, 2013. The application due date was November 14, 2013. Grant Solicitation PON-13-605 sought to fund projects that will develop, construct, expand, rent/lease, and/or operate a center serving multiple functions related to alternative fuels and advanced vehicle technology.

The project assessed in this report includes a center in Northern California that will help unify activities that may provide future development and expansion of alternative fuels and advanced vehicle technologies through collaboration with existing and new centers throughout the state. During normal operations, the facility will not generate criteria emissions, particulate matter (PM)¹, or air toxics at any appreciable level. The proposed center will be located at an existing facility with minor modifications of the facility; therefore, the project will most likely not have any effects on the local environment.

The Energy Commission is required to analyze and publish this *LHI Report* for public review and comment for a period of 30 days. Based on the Energy Commission's interpretation of the *Air Quality Improvement Program (AQIP) Guidelines*, this *LHI Report* provides information about the community surrounding the potential project site and assesses the potential impacts to public health in that community as a result of the project. This report is prepared under the *California Air Resources Board AQIP Guidelines, California Code of Regulations, Title 13, Motor Vehicles, Chapter 8.1 (CCR § 2343)*:

“(6) Localized health impacts must be considered when selecting projects for funding. The funding agency must consider environmental justice consistent with state law and complete the following:

(A) For each fiscal year, the funding agency must publish a staff report for review and comment by the public at least 30 calendar days prior to approval of projects. The report must analyze the aggregate locations of the funded projects, analyze the impacts in communities with the most significant exposure to air contaminants or localized air contaminants, or both, including, but not limited to, communities of minority populations or low-income populations, and identify agency outreach to community groups and other affected stakeholders.

¹ “Particulate matter” is unburned fuel particles that form smoke or soot and stick to lung tissue when inhaled.

(B) Projects must be selected and approved for funding in a publicly noticed meeting.”

This *LHI Report* is not intended to be a detailed environmental health or impact analysis of projects potentially to be funded by the program nor is this assessment intended to be a substitute for the comprehensive environmental review conducted by regulatory agencies during the California Environmental Quality Act (CEQA) process. The application of CEQA would provide a more detailed analysis of the potential for adverse environmental effects of the proposed projects.

This report collects available information about the potential air quality impacts of the proposed projects and provides a collective, narrative analysis of the potential for localized health effects from those projects. The *AQIP Guidelines* mandate that the Energy Commission track the progress of the projects through the CEQA process and ensure a commitment exists from the proposers to complete all mitigation measures required by the permitting agency before they receive the first funding allocation.

Staff reviewed results from the Environmental Justice Screening Method (EJSM) to identify projects located in areas with social vulnerability indicators and the greatest exposure to air pollution and associated health risks.² The EJSM was developed to identify low-income communities highly affected by air pollution for assessing the impacts of climate change regulations, specifically Assembly Bill 32 (Núñez, Chapter 488, Statutes of 2006), the California Global Warming Solutions Act of 2006.

The EJSM identifies the various levels of risk in regions throughout California, and high-risk communities are considered especially vulnerable to even the smallest impacts. The EJSM integrates data on exposure to air pollution, cancer risk, ozone concentration and frequency of high ozone days, race/ethnicity, poverty level, home ownership, median household value, educational attainment, and sensitive populations (populations under 5 years of age, or over 65 years of age).

The California Air Resources Board applied the method to the San Francisco Bay Area, the San Joaquin Valley, and California’s desert region. However, the results consider only income among the list of social vulnerability indicators. For communities not yet assessed in the EJSM, the Energy Commission identifies high-risk areas as those in nonattainment basins for ozone, particle pollution, or particulate matter (PM) 2.5 and PM 10, along with populations that have high poverty and minority rates as well as a high percentage of sensitive populations.

2 California Air Resources Board, *Air Pollution and Environmental Justice, Integrating Indicators of Cumulative Impact and Socio-Economic Vulnerability Into Regulatory Decision-Making*, 2010. (Sacramento, California) Contract authors: Manuel Pastor Jr., Ph.D., Rachel Morello-Frosch, Ph.D., and James Sadd, Ph.D.

This *LHI Report* contains detailed assessments for projects proposed to be located in a low-income community that is highly impacted by air pollution. The reasons this *LHI Report* contains detailed assessment for these communities is that the populations within these communities are presumed to be most susceptible to health risks because of their exposure to criteria and toxic air pollutants on a more continual basis as compared with other regions.

Permits

For this assessment, the Energy Commission interprets “permits” to connote discretionary and conditional use permits because they require a review of potential impacts to a community and the environment before issuance. For air permits, local air districts conduct a New Source Review (NSR) to determine the emission impacts. Since ministerial-level permits, such as building permits, do not assess public health-related pollutants, the Energy Commission staff does not assess projects requiring only ministerial level permits in this report. An overview of the permit requirements for identified projects potentially to be located in at risk communities is included in the project overviews in this *LHI Report*.

Demographic Data

Staff collected information on ethnicity, age, and income for the city/community where the center, if funded, would be located. The information identifies those communities with higher minority populations, lower incomes, and highly sensitive groups based on age. For this assessment, staff identifies sensitive populations as individuals younger than 5 years of age and older than 65 years of age. The demographic data for the proposed project site are provided.

Emissions

Staff collected information about predicted emissions from the project proposal. The emissions considered for this assessment include those from developing and/or expanding a center for alternative fuels and advanced vehicle technologies.

Community Status of Proposed Projects

The following community status description for the proposed project is based on the California Air Resources Board *Proposed Screening Method*, which integrates data to identify low-income communities that are highly impacted by air pollution.³ The *California Infrastructure State Implementation Plans* (<http://www.arb.ca.gov/planning/sip/sip.htm>) are used as a source for public notices for attainment plans. The *Green Book Nonattainment Areas for Criteria Pollutants* (<http://www.epa.gov/oaqps001/greenbk>) is also used as an information source for this assessment.

³ California Air Resources Board, *Proposed Screening Method for Low-Income Communities Highly Impacted by Air Pollution*, 2010 (Sacramento, California).

carbonBLU LLC

Project Name

The NORCAL Alternative Fuels and Advanced Vehicle Technology Center

The corporation carbonBLU LLC proposes to develop and operate the NORCAL Alternative Fuels and Advanced Vehicle Technology Center located at McClellan Business Park, a sustainably designed, mixed-use business and residential center in northern Sacramento County. The proposed center will serve as a major hub of innovation, education, and adoption of alternative fuels and advanced vehicle technologies for public and private fleets in Northern California.

The McClellan Park has 8 million square feet of available office space. The park is located at 3140 Peacekeeper Way, McClellan, CA, 95652, in the Peacekeeper Office subdistrict, with permitted uses including office and light industrial.

The proposed site of the center is located within 1/4-mile of the nearest residential housing units within McClellan Business Park. The nearest day care facility, Beanstalk, Inc., is located about 2,000 feet away. The nearest elder care facility, Sue's Goldin Care Home, is located within 2.5 miles of the center. The nearest medical facility (VA Northern California Health Care System: McClellan Outpatient Clinic) is located on the grounds of McClellan Park within roughly 1,500 feet of the center. The nearest school, Keema High School, is located within 1,500 feet of the proposed center.

Operation of the proposed center will not involve any transport of fuel, feedstock, or other material to the project site. Moreover, the proposed project will not produce any fuel or technology components. Therefore, the proposed center will not produce any emissions.

Outreach

Throughout the project, the center will implement numerous outreach activities to educate the surrounding community about the impacts of the Center. The corporation carbonBLU, LLC plans on opening all events, such as ride and drives and bimonthly workshops, to the public. Events will be marketed to specific industry groups by way of newsletters and inclusion in coalition and trade association publications, for example, newsletters, videos, forums, and email blasts. Furthermore, center representatives will extend invitations to participate to local colleges and other public organizations such as Greenwise Joint Venture and Sacramento Area Council of Governments via newsletters and email blasts.

In addition, carbonBLU, LLC plans on using traditional media and social media to reach out to people all over the region to promote participation and the proliferation of information regarding its efforts and activities. It has designed a forum platform to encourage discussion and collaboration regarding alternative fuels and advanced vehicles. Significant outreach will be made connecting the company to existing networks locally thorough social media such as Facebook and Twitter, while industry partners will provide relevant content.

The corporation carbonBLU, LLC will consistently participate in some form of community outreach, with monthly newsletters to all stakeholders, updates on Twitter and Facebook, and bimonthly workshops, in addition to participation in trade shows.

The center will provide information regarding alternative fuels, including everything from fuel management and purchasing issues to the politics of alternative fuels. The corporation carbonBLU, LLC will address advanced technology vehicles by discussing issues ranging from vehicle buying practices to industry application and best-fit technologies. Moreover, the center will assist fleet managers in funding programs to integrate alternative fuels with available grants and incentive programs.

CHAPTER 3: Location Analysis and Community Impacts

Based on staff's assessment of the proposed project, it is expected that the surrounding community would be disproportionately impacted by the implementation of this project. For this *LHI Report*, environmental justice (EJ) indicators are evaluated as follows.

- A *minority EJ* is indicated if a minority subset represents more than 30 percent of a given city's population.
- A *poverty level EJ* is indicated if a city's poverty level exceeds California's poverty level (for the entire state – 15.3 percent).
- An *unemployment EJ* is indicated if a given city's unemployment rate exceeds the California's unemployment rate (for the entire state – 8.1 percent as of March 2014).
- An EJ indicator is also noted for communities where the *percentage of persons younger than 5 years of age or older than 65 years of age* is 20 percent higher than the average of the percentage of persons under 5 years of age or over 65 years of age for the entire state. (For the entire state, the percentage of persons under the age of 5 years is 6.8 percent, and the percentage of persons over the age of 65 years is 11.4 percent.)

The proposed project site has poverty and unemployment EJ indicators. Both age and minority EJ indicators do not exist in this proposed site. The proposed project is expected to have a net benefit by reducing emissions, thus leading to improved air quality. While overall air quality depends on a number of factors, the Energy Commission expects that air quality will improve over time where the site is proposed. Table 1 of this *LHI Report* covers the communities with EJ indicators that are described as minority EJ, poverty level EJ, unemployment EJ, and age EJs.

Table 1: EJ Indicators

Proposals	Community	Minority	Poverty Level	Unemployment Rate	Age
1	McClellan (data for Sacramento County)		X	X	

Source: Energy Commission staff analysis

CHAPTER 4:

Summary

If funded, the proposed project would result in developing a center for alternative fuels and advanced vehicle technologies. Table 1 lists the EJ indicators for the site. The site will increase the widespread use of alternative fuel vehicles through education, demonstration, testing, evaluation, and outreach. As more alternative fuel vehicles enter the market and begin to displace gasoline and diesel vehicles, tailpipe pollutants will decrease significantly.

The anticipated impacts to the community where this project would be located are positive in terms of cleaner air and anticipated GHG reductions.

The anticipated benefit from this project for the people who live in this community is highly likely, if not certain, to be positive. More demographics for the community are contained in Appendix A. Appendix A contains information on persons below the poverty level, black persons, American Indian and Alaska Native, persons of Hispanic or Latino origin, white persons and persons under 5 years of age and over 65 years of age. The unemployment rate for the community is also given in Appendix A.

CHAPTER 5:

Acronyms

AQIP	Air Quality Improvement Program
ARFVTP	Alternative and Renewable Fuel and Vehicle Technology Program
CEQA	California Environmental Quality Act
EJ	Environmental justice
EJSM	Environmental justice screening method
GHG	Greenhouse gas
LHI	Localized health impact
PM	Particulate matter
PON	Program Opportunity Notice

APPENDIX A: Demographic Data

Table 2: Demographic Data for Communities With EJ Indicators (percent)

2010 Data	Persons Below Poverty Level	Black Persons	American Indian and Alaska Native	Persons of Hispanic or Latino Origin	White Persons	Persons Under 5 Years of Age	Persons Over 65 Years of Age	Unemployment Rate (March 2014)
McClellan (data for Sacramento County) Population: 1,418,788	16.5	10.9	1.6	22	47.7	6.9	11.9	8.1

Sources: Unemployment information from the State of California, Employee Development Department (EDD) Labor Market Information Division: <http://www.labormarketinfo.edd.ca.gov/Content.asp?pageid=133> and [Age / ethnicity demographics, U.S. Department of Census: http://quickfacts.census.gov](http://quickfacts.census.gov).